

# Le Vigneron

*A newsletter for the grape growers and wine makers of Oklahoma*

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## Exciting Times Ahead

I don't know about you, but I am excited for 2010. We have a new publication coming out, "Handbook of Oklahoma Vineyard Establishment and Management" that is an encapsulation of the current knowledge of Oklahoma viticulture. It is meant to be a "living document" that will be updated as time goes on and as we learn more about viticulture in Oklahoma. We have also reprinted the "Pocket Guide to Grape Diseases, Insects, and Other Disorders" and I just received the 2010 copy of the Midwest Grape and Small Fruit Spray Guides. This coming year will also be exciting because of the national effort in eXtension that OSU is playing a prominent role in. So far we have several researchers on board from all over the country and expect more in the future. This could have a significant impact on how grape growers and wine makers learn in an online environment. Right now it is just a germ of an idea, but it should be launched nationally within the next year. Once launched it will continue to grow and evolve. We are also in process of interviewing for a new entomologist to fill the spot vacated by Dr. Phil Mulder when he made the jump to Department Head. All of this points to a new year filled with promise and growth. I hope all of you had a good 2009 and look forward to an exciting 2010.

## 2010 OSU Grape Management Short Course Update

**Eric T. Stafne**

The 2010 OSU Grape Management Short Course dates have been set. The first class will be March 4, followed by April 8, May 6, June 10, July 8, August 12, and September 23. This year attendees will receive both the Pocket Guide to Grape Diseases, Insects, and Other Disorders as well as the brand new Handbook of Oklahoma Vineyard Establishment and Management. Read more about the new book on page 4. We will be teaching from this book authored by several OSU faculty members. It should be an interesting experience and I hope to see you there! To sign up, contact me.

# The Technical Tipple

**William McGlynn**

The wine being examined in this edition of *Le Vigneron* is a Vignoles from the great state of Oklahoma. No vintage year is given on the label. The label is simple, but attractive.

Vignoles is a white hybrid grape. It has traditionally been identified as being the result of a cross between Seibel 8665 and Pinot de corton, a type of Pinot noir. However, John Bautista and others from the USDA have recently conducted genetic studies that reportedly disprove this parentage (*Use of Genetic Markers to Assess Pedigrees of Grape Cultivars and Breeding Program Selections*. Am. J. Enol. Vitic. 59(3):248-254. 2008). Regardless of the grape's heritage, it is a commonly-grown hybrid variety that is well known for its intense floral and citrus flavors, most often compared to a Riesling or a Gewürztraminer. Wine made from Vignoles is most often sweet or semi-sweet, although a dry white wine may also be produced. The vines themselves are relatively cold-hardy and have some resistance to Black Rot. The grape clusters are large and very tight, however, which makes them somewhat susceptible to several kinds of bunch rot.

On to the testing... Following are the **objective test results** we obtained:

## Oklahoma Vignoles Wine

pH: 3.23

— Titratable acidity: 9.4 g/L (0.94%) as tartaric

Free SO<sub>2</sub>: 10 ppm

Total SO<sub>2</sub>: 96 ppm

Residual sugar: probably around 2-4% (20-40 g/L)

Alcohol: 13.1% (Labeled as table wine)

The pH is well within the normal, desirable range for a white wine. The titratable acidity is slightly above the desirable range for a white (6-8 g/L), but this is not uncommon for wines made from many hybrid cultivars. We were not able to accurately measure the residual sugar, but the wine is medium sweet. The measured alcohol content was typical and within the required range to be labeled as a table wine.

The free SO<sub>2</sub> level was measured at 10 ppm. This translates to a molecular SO<sub>2</sub> concentration of about 0.36 mg/L (ppm) at a pH of 3.23, which is somewhat below the standard baseline of 0.6 mg/L molecular SO<sub>2</sub> recommended to insure storage stability. At the measured pH a free SO<sub>2</sub> concentration of about 16 ppm would be required to achieve the 0.6 mg/L molecular SO<sub>2</sub> target. Because of the less-than-ideal SO<sub>2</sub> concentration, browning might be an issue in this wine over time. There was no evidence of that in the bottle tested, however. Overall the fundamental chemistry of this wine is fairly sound with no glaring deficiencies or obvious problems.

## **The subjective impressions:**

The clarity of the wine was quite good. There was no hint of haze or turbidity and the wine had a rich, deep gold/amber color. It was attractive and inviting. The legs were very pronounced, almost syrupy, as one might expect given the sugar and alcohol content of the wine.

The aroma of the wine was intense with citrus, honeysuckle floral notes, and tropical fruit. The citrus aroma tended toward grapefruit rather than orange. Whiffs of nectarine and mango rounded out the fruit fragrances. Overall the aroma was pleasant and somewhat complex, but it was hard to detect anything below the fruity, floral blend. The bouquet was tempting, but "subtle" is not the word to describe the experience.

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## The Technical Tipple, cont.

**William McGlynn**

The wine had a good mouthfeel, full-bodied but not oily. It was fairly sweet, but the sweetness was balanced by the acidity. In fact, a bit more sugar might have helped to match the slightly acid character of the wine. The predominant flavors were very similar to the major aromas: floral and fruity. There was just a hint of earthiness as well. Perhaps the wine received a fining treatment? At any rate the tastes closely mirrored the aromas in both intensity and character. The wine was indeed rather reminiscent of a German Riesling, with one notable exception. The wine did have the typical “foxy” flavor frequently associated with hybrids. It was not objectionable, but it was noticeable and tended to leave a slightly bitter, astringent aftertaste.

That (in)famous “foxy flavor” highlights one risk of overplaying the resemblance of Vignoles – or any hybrid grape – to a familiar *vinifera* varietal. A taster who has been led to expect a Riesling-like experience will notice the difference when served a Vignoles. Perhaps it is wiser in the long run to allow Vignoles or any other grape to be approached without bias and judged on its own merits. After all, one could argue that Vignoles’ hybrid flavor characteristics lend complexity to what might otherwise be a cloying sensory experience.

### The final verdict:

This wine is not subtle, but it is fairly well balanced and well crafted. It is clear and attractive in the glass. The aromas and flavors are intense, fruity and floral – very characteristic of the grape. It is perhaps too full-bodied to make a good sipping wine, but it would be ideal to serve with fruit and cheese. It would also go well with savory-sweet foods such as glazed ham and some fish or poultry dishes. All in all, it is a fine example of a very good wine made from a regionally-adapted cultivar. Yes, it can be done!



**The Technical Tippler’s ranking of an Oklahoma Vignoles Wine: 7 out of 10 flasks.**

The Technical Tippler welcomes suggestions for wines to evaluate and evaluations to conduct! Feel free to email suggestions to [william.mcglynn@okstate.edu](mailto:william.mcglynn@okstate.edu).

## OGGWMA Grape Blog Update

**Eric T. Stafne**

What to say about the blog? I know of one regular reader and a few other casual readers. Some of the problem may be the difficulty in actually finding it on the website. Some folks are just busy and others don’t want to read it. Another issue may be that one must be a member of the OGGWMA to read it, that in and of itself limits readership. Yet, I will try to keep those who do read it abreast of new items of interest. Speaking of OGGWMA, don’t forget to attend the annual conference. While many of you may feel ambivalent (or worse) about the organization, it is still the largest grape growing and wine making organization in Oklahoma. Like it or not, the organization speaks for you. Just something to think about.

## New Handbook of Oklahoma Vineyard Establishment and Management

**Eric T. Stafne**

The OSU Viticulture and Enology team is pleased to present a new publication, Handbook of Oklahoma Vineyard Establishment and Management. This book will serve as our primary instructional tool in the OSU Grape Management Short Course, but also is available to anyone who would like a copy. It came in at 212 pages, chock full of good information with color photos, figures, tables, and drawings. This project was funded by an internal OSU grant through the Oklahoma Cooperative Extension Service and the Agricultural Experiment Station. In all, 18 authors contributed to this publication. If you would like a copy, please let me know. Price still has yet to be determined, but the likely cost will only be to cover shipping since it was funded through a grant. See page 5 for table of contents.

**Right:** Cover of the new Handbook.



# New Handbook Table of Contents

Eric T. Stafne

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## Disease Profile — Anthracnose

Damon L. Smith

Anthracnose is caused by the fungus (*Elsinoë ampelina*). The disease is of European origin, therefore anthracnose is generally worse on hybrid bunch grapes. Anthracnose is not considered a widespread disease in Oklahoma. However, in areas that are humid and warm with above average rainfall, the disease can be problematic. It can also be severe in other areas of the State in years with heavy rainfall, and above average temperatures. Once established in a vineyard, anthracnose can be a persistent problem in subsequent years. Over the past several years, increasing numbers of grape samples with anthracnose have arrived in our Plant Disease Diagnostic Laboratory. This is likely attributable to the abnormally wet and warm conditions we have observed over the last few growing seasons. I have also observed anthracnose in vineyard research plots located in central Oklahoma on the cultivar ‘Reliance’ in 2008 and 2009. This cultivar has been reported to be susceptible to anthracnose and appears to be one of the more susceptible cultivars grown in Oklahoma.

The fungus overwinters as survival structures (sclerotia) found on old, infected plant material. In the spring when conditions are predominately wet (24 hours or more of wetness), sclerotia will germinate to form mycelium that produces spores (conidia). A fruiting structure (ascocarp) can also be produced from the sclerotia, which will also produce another type of spore (ascospore). Regardless of the type of spore, once transported to susceptible tissue (via wind), temperatures between 35 °F and 90°F are suitable for infection. However, optimal conditions for disease development are 75°F – 79 °F. Once the fungus has parasitized the host it can also produce fruiting bodies (acervuli) that produce pinkish, slimy masses of spores when conditions are wet. The spores can be splashed to adjacent plant tissue and cause new infections.

Anthracnose is most common on young shoots and fruit, but can be observed on any succulent plant material. Lesions on shoots and leaves are often sunken and can take on a reddish appearance especially near the margins (Figure A1). The damage may resemble hail damage. However, the lesions will have a dark brown to black margin that is absent from wounds inflicted by hail. In addition, hail damage will generally appear on one side of a shoot, whereas, anthracnose lesions will be present on all sides of the shoot. On leaves the centers of the lesions can fall out producing a “shot-hole” appearance. Leaves can curl and distort if the fungus infects veins. On fruit, lesions will also be sunken and appear more reddish-black in color (Figure A2). As the lesions enlarge (up to ¼”) the center will become increasingly sunken and turn gray in color. Fruit may also crack as the lesions expand, exposing the seed.

*Cultural Management Options.* Because the primary source of spores for new infections results from structures formed in old plant tissue, sanitation is extremely important. Proper dormant pruning and destruction of canes, clusters, and other plant parts can significantly reduce the amount of primary inoculum (spores). Also, canopy management during the season can help to increase airflow, which reduces leaf wetness duration (primary component for infection). Practices such as shoot positioning and strategic leaf pruning can reduce drying time. Eliminating any wild grape vines in close proximity to the vineyard will also help eliminate spore-producing reservoirs and reduce the amount of anthracnose observed in the vineyard.

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# Anthracnose, continued

Damon L. Smith

*Chemical Management Options.* In areas with a history of the disease, applying lime sulfur sprays during the dormant season is advised. This application of fungicide helps to further reduce the amount of primary inoculum. Subsequent fungicide sprays every 10 to 14 days from bud break until veraison may be necessary where anthracnose is severe. Check with your county extension office for a list of fungicides effective for controlling anthracnose.

## Literature Cited

Compendium of Grape Diseases, Fourth Edition. 1998. Edited by R.C. Pearson and A.C. Goheen. American Phytopathological Society Press.

Ellis, M.A. and Erincik, O. Fact Sheet: Anthracnose of Grape. The Ohio State University Cooperative Extension Service. HYG-3208.

The North Carolina Winegrape Grower's Guide. 2007. Edited by E. Barclay Poling. North Carolina Cooperative Extension Service.



**Figure A1.** Anthracnose symptoms on a succulent shoot. (Photo Credit: Dr. Turner Sutton, North Carolina State University)

## Performance of 'Noiret' at Three Locations in Oklahoma

**Eric T. Stafne**

Last year, Dr. Bruce Reisch contacted me for information about 'Noiret'. He was giving a talk to Kansas and Missouri grape growers about the cultivar that he released a few years ago. Below are the data that I sent to him, with a few comments on performance.

Performance of own-rooted Noiret at three locations in Oklahoma: Stillwater (North Central), Perkins (North Central), and Burns Flat (Southwest).

| Year                      | Harvest Date | Lbs/acre<br>(8x12) | Avg berry<br>weight (g) | Avg cluster<br>weight (g) | pH   | TA   | Brix  |
|---------------------------|--------------|--------------------|-------------------------|---------------------------|------|------|-------|
| Stillwater (High Curtain) |              |                    |                         |                           |      |      |       |
| 2005                      | 18 Aug.      | 5,621              | 1.93                    | 104.4                     | 3.62 | 0.66 | 17.42 |
| 2006                      | 6 Aug.       | 9,089              | 1.71                    | 123.1                     | NA   | NA   | NA    |
| Perkins (VSP)             |              |                    |                         |                           |      |      |       |
| 2005                      | 26 Aug.      | 2,067              | 1.93                    | 90.9                      | 4.01 | 0.43 | 18.4  |
| 2006                      | 9 Aug.       | 4,117              | 1.59                    | 87.2                      | 3.90 | 0.42 | 19.6  |
| 2007                      | 4 Oct.       | 57                 | NA                      | NA                        | NA   | NA   | NA    |
| 2008                      | 19 Sept.     | 838                | 2.18                    | 72.7                      | 4.10 | 0.32 | 19.7  |
| 2009                      | 31 Aug.      | 453                | 2.33                    | 88.3                      | 3.98 | 0.40 | 19.2  |
| Burns Flat (High Curtain) |              |                    |                         |                           |      |      |       |
| 2006                      | 3 Aug.       | 2,622              | 1.28                    | 71.7                      | 3.86 | 0.58 | 17.13 |



## Performance of 'Noiret', continued

Notes on years:

**2005** – excellent year for grapes, first bearing year, 50% budbreak on April 13.

**2006** – late fall freeze in 2005 causes some damage in other vines, but Noiret was unaffected. Very hot, very dry summer (more than 30 days over 100 °F), harvest was 2 weeks earlier than 2005. 50% budbreak on April 7.

**2007** – Easter freeze year. Very warm March forced early budbreak (March 28). Significant structural damage observed at Stillwater (cordons dead and crown gall). Cooperator pulls out 'Noiret' in favor of 'Corot Noir'. Lesser damage at Perkins (~15 miles S of Stillwater), but very poor secondary crop. Very wet year, poor year for grapes.

**2008** – Vines still recovering from 2007, wet spring, high disease pressure, relatively cool year, mediocre year for grapes.

**2009** – A better year for grapes, although disease pressure was high. Late spring freeze may have affected crop again. Depredation heavy due to lack of other food sources for predators.

Other note: Ratings for 2,4-D injury at Perkins suggest 'Noiret' is moderately susceptible to slight amounts of drift or volatilization. Unknown source of herbicide.

## Cultivar Spotlight: Noiret

**Eric T. Stafne**

'Noiret' is a very interesting cultivar. I think it has great potential for parts of Oklahoma. One of the great things about it is that it is a hybrid red grape that has a very *vinifera*-like taste. But in my opinion it "one-ups" *vinifera* by providing a very spicy (read: black pepper) flavor. So far I have only sampled wine made from the fruit from New York, but I suspect we will be seeing more of it coming out of Missouri and surrounding states in the near future. It is not terribly cold hardy, so that could be an issue and it was severely damaged in our Easter freeze of 2007. In fact, it has yet to fully recover — but then again many cultivars have yet to fully recover. This may make a decent substitution for 'Shiraz'. We need to do more work on it, especially looking at it on a rootstock, which could make a big difference.



'Noiret'<sup>TM</sup> (pronounced "nwahr-ay"), a mid-season red wine grape, is a complex interspecific hybrid resulting from a cross made in 1973 between NY65.0467.08 and 'Steuben'.

Credit: Bruce Reisch – NYSAES, Cornell University

# Viticulture & Enology

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We welcome feedback and suggestions. Any responses can be mailed or emailed to the addresses on the left. We will strive to provide useful, pertinent, and timely information.

Initially this newsletter will be published 4 times per year in January, April, July, and October. If warranted the timing can be amended to better serve the grape growers and wine makers of Oklahoma.



'Vigneron' is the French word for someone who grows grapes for use in wine making.

## Anthracnose, continued



**Figure A2.** Anthracnose symptoms on young fruit. (Photo Credit: Dr. Turner Sutton, North Carolina State University)